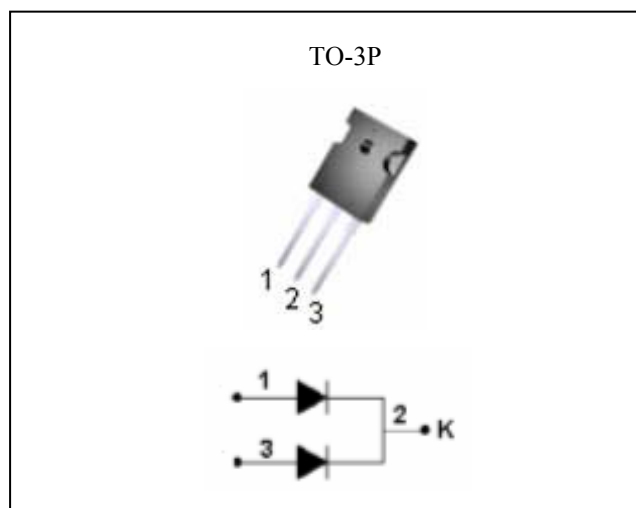


## 40 AMP SCHOTTKY BARRIER RECTIFIERS

### FEATURES

- Metal of silicon rectifier, majority carrier conduction
- Low power loss.high efficiency
- High current capability, low  $V_f$
- High surge capacity
- Guard ring for transient protection
- High temperature soldering guaranteed:250 °C /10 Seconds/0.375"(9.5mm) lead lengths at 5 lbs(2.3Kg) tension
- For use in low voltage , high frequency inverters, free wheeling, and poparity protection applications.



### ORDERING INFORMATION

| Device    | Operating Temperature | Package |
|-----------|-----------------------|---------|
| PJ40C60CZ | -20°C ~ +85°C         | TO-220  |
| PJ40C60CI |                       | TO-220F |

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified. Single phase, half wave 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

| Parameter                                                                                                        | Symbol          | PJ40C60     | Units |
|------------------------------------------------------------------------------------------------------------------|-----------------|-------------|-------|
| Maximum Recurrent Peak Reverse Voltage                                                                           | $V_{RRM}$       | 60          | V     |
| Maximum RMS Voltage                                                                                              | $V_{RMS}$       | 31.5        | V     |
| Maximum DC Blocking Voltage                                                                                      | $V_{DC}$        | 45          | V     |
| Maximum Average Forward Rectified Current See Fig.1                                                              | $I_{F(AV)}$     | 40          | A     |
| Peak Forward Surge Current, 8.3ms single half Sinewave superimposed on rated load (JEDEC Method)                 | $I_{FSM}$       | 400         | A     |
| Maximum Instantanuous Forward Voltage Per Leg $I_f=5A, T_c=25^{\circ}C$ (Note 3)                                 | $V_f$           | 0.70        | V     |
| Maximum Average Reverse Current at $T_A=25^{\circ}C$<br>Rated DC Blocking Voltage per Clement $T_A=100^{\circ}C$ | $I_R$           | 1.0<br>75   | mA    |
| Typical Thermal Resistance.(Note 1)                                                                              | $R_{\theta JC}$ | 2           | °C /W |
| Typical Junction Capacitance (Note 2)                                                                            | $C_J$           | 1100        | PF    |
| Operating Temperature Range                                                                                      | $T_J$           | -40 to +125 | °C    |
| Storage Temperature Range                                                                                        | $T_{STG}$       | -65 to +150 | °C    |

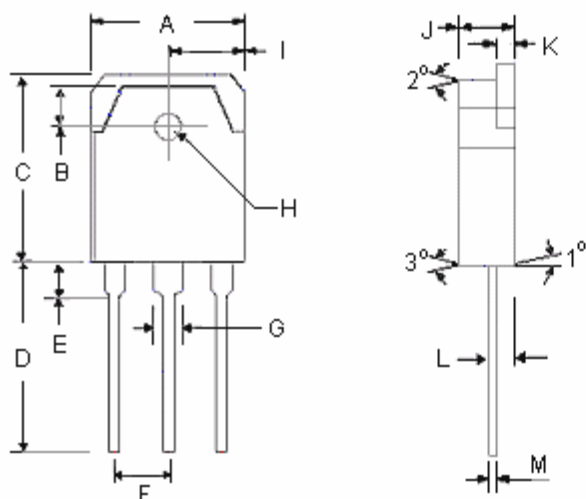
NOTES: 1. Thermal Resistance Junction to CASE.

2. Measured at 1MHz and applied reverse voltage of 4.0 volts.

3. 300  $\mu s$  Pulse Width, Duty cycle 2%.

**40 AMP SCHOTTKY BARRIER RECTIFIERS**

TO-3P Unit : mm



| DIM | TO-3P DIMENSION |         |        |       |
|-----|-----------------|---------|--------|-------|
|     | MILLIMETERS     |         | INCHES |       |
|     | MIN             | MAX     | MIN    | MAX   |
| A   | 15.400          | 15.800  | 0.606  | 0.622 |
| B   | 3.600           | 4.000   | 0.142  | 0.157 |
| C   | 19.700          | 20.100  | 0.776  | 0.791 |
| D   | 19.800          | 20.200  | 0.780  | 0.795 |
| E   | 3.300           | 3.700   | 0.130  | 0.146 |
| F   | 5.250           | 5.750   | 0.207  | 0.226 |
| G   | 2.800           | 3.200   | 0.110  | 0.126 |
| H   | Ø 3.000         | Ø 3.400 |        |       |
| I   | 7.600           | 8.000   | 0.209  | 0.406 |
| J   | 4.600           | 5.000   | 0.181  | 0.197 |
| K   | 1.450           | 1.650   | 0.057  | 0.065 |
| L   | 1.200           | 1.600   | 0.047  | 0.063 |
| M   | 0.550           | 0.750   | 0.021  | 0.030 |